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ABSTRACT

Functions of educational specialists, including educational psychologists, in the field of pharmaceutical education are discussed. The functions considered range from a general educational consultant to evaluator of an innovative program. Requirements for functioning effectively within a pharmacy school are also examined. The compensation available for those involved is outlined, and the future of educational psychologists in pharmacy education is described. This is considered in view of the recent federal proposal to discontinue capitation funds for schools of veterinary medicine, optometry, pharmacy, and podiatry as contrasted to the continuing need and mounting concern for the improvement of the educational process in schools of pharmacy. It is noted that there are 72 schools of pharmacy in the U.S. and approximately 30 to 40 educational specialists working within those schools, engaged in a wide variety of activities including "pure" educational research, program evaluation, curriculum development and revision, test design, admissions research, faculty evaluation, development of certifying examinations, and faculty development. (Author/LBH)

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ROLES FOR EDUCATIONAL PSYCHOLOGISTS IN PHARMACEUTICAL EDUCATION

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The knowledge that the discipline of education has something to contribute to pharmaceutical education has come only lately to schools of pharmacy. Primarily due to pressure by the federal government and an excess of funds, pharmacy schools have begun to revise their curricula and have been calling upon persons with educational expertise to assist them in their endeavors. In addition, an increasing concern with the social science aspects of pharmacy has opened new areas of teaching and research for qualified educational psychologists.

Since schools of pharmacy are of small number in the United States, and there is considerable evidence that individuals outside the profession have very little knowledge of pharmaceutical education, it is probably appropriate to briefly describe its characteristics. There are 65 schools in 44 of the 50 states that enroll a total of 23,000 students. These schools generally offer a Bachelor of Science in pharmacy after five years of training. In addition, some schools offer a professional doctorate - the Pharm.D. All schools admit students after one or two years of general university education for an intense course of three or four years of professional education.

The curriculum of most schools has a very heavy chemical sciences emphasis, although there is an increasingly clinical orientation in that schools are becoming more concerned about the pharmacists' patients or patrons. This curriculum generally prepares students to practice either in a community pharmacy or in a hospital setting.

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Schools of pharmacy generally have an applicant to admission ratio of about 2.5 to 1. Those students admitted are generally high academic achievers. Recent research (Rezler, et.al., 1977) has characterized these students as enjoying established routine, disliking new problems unless they are standard ways to solve them, persisting in their work habits, inpatient with complex details, tending to be good at precise work, making few errors of fact, planning their work ahead, and tending to be satisfied once they reach a judgement on thing, situation or person. This research appears to characterize pharmacy students as fairly conservative in nature and intent on completing their education in order to enter the world of professional practice.

Faculty of pharmacy schools are predominantly science Ph.Ds, with degrees from schools of pharmacy. There is also a growing trend toward hiring some people with the Pharm.D. professional doctorate. These faculty members are characterized by little or no educational training, and thus the dominant mode of teaching employed is "lecturing as one was lectured to." The primary concern of most faculty members is research or professional service. A lack of concern for teaching along with a lack of training in educational techniques has generally resulted in a very uneven quality of pharmaceutical education.

However, there have been a number of relatively recent developments which are acting to change the nature, structure and emphasis of pharmaceutical education. The primary force for change has been the Comprehensive Health Manpower Training Act passed by Congress in 1971. This act provided schools of pharmacy with allocations of funds based solely on the number of students enrolled. In addition the act provided money for a number of Special Projects to improve the quality of education within the health professions. Thus, schools of pharmacy were presented with a great deal of money which they were free to spend as they liked. One area in which schools chosed to spend their money was in the area of educa-

tional development, and as a consequence a number of educational specialists were hired and projects undertaken. Two of the most notable projects were a five year project at the University of Illinois School of Pharmacy to develop a complete self-study curriculum in pharmacy, and at the University of Minnesota to develop a competency-based curriculum.

A self-study report by the American Association of Colleges of Pharmacy (Study Commission on Pharmacy, 1975) has promoted several developments. One of these has been an increased emphasis on certifying the competence of pharmacy practitioners. This has lead to an increased concern for and development of competency-based curricula as well as competency certifying examinations. Another outcome of this report has been the increased person orientation of pharmacy education. The pharmacist is coming to be viewed as an educator as well as a dispenser of drugs. A third set of outcomes have been a variety of new curricular emphases including communications, gerontology,and patient education.

Efforts to develop a variety of new national exams for pharmacy students and pharmacists are also recent developments. Considerable effort has gone into the development of the Pharmacy College Admissions Test and the NABPLEX certifying examination developed by the National Association of Boards of Pharmacy. A major project now underway is the development by the Educational Testing Service, the American Association of Colleges of Pharmacy, and the American Pharmaceutical Association of assessment methods for standards of professional practice.

Finally, in the last several years there has been an increased emphasis in research on the psychological and social aspects of drug use, pharmacy and pharmacy practice. There have been a number of research efforts concerned with how people learn about drugs and the best method of increasing effective use of drugs.

These developments have opened a number of opportunities for persons educated outside of schools of pharmacy to become involved in the various aspects of phar-

maceutical education and pharmaceutical research. Included among these are a number of opportunities for which educational psychologists are well suited.

These opportunities lie in three areas: educational development, teaching, and research and development. A number of schools have established administrative units that have responsibility for educational development. These are generally directed by individuals with training in various areas of education. Such individuals are often considered to be general educational specialists who provide a variety of services for a school. These services can range from organizing and directing a revision of the curriculum, to faculty development activities such as individual counseling on teaching techniques and student evaluation of teaching,to the provision of graphics and audiovisual services. A few schools are establishing learning resource centers for individualized instruction and these individuals are often called upon to plan and direct such facilities.

The second area, teaching, is a result of the increased emphasis on human behavior in schools of pharmacy. Faculty members have been hired to teach courses in various aspects of human behavior, communications, and educational techniques. These persons also frequently have teaching responsibilities in research methodology and statistics. In all such teaching activities faculty members are expected to relate their knowledge to the practice of pharmacy or to research in areas of pharmaceutical inquiry.

The third area, research and development, is an outgrowth of the Comprehensive Health Manpower Training Act. Since most special projects financed by this Act have required program evaluation, there have been a number of opportunities for educational psychologists trained in evaluation methodologies to work with these projects. There have also been a number of project staff positions available in various areas of educational development, measurement, and evaluation. Opportunities also exist to work in the development of instruments for assessing both com-

petence of pharmacy practitioners and the achievements of pharmacy students. The major area of educational research has been the investigation of the characteristics of students as they relate to academic achievement and on the job performance, though new opportunities are arising in areas of research dealing with patient education and effective drug use.

In order to function effectively in any of these areas the individual must have a broad experience and training in education. Particularly in educational development, it is important to have a working knowledge of many teaching techniques as well as the theoretical foundations of teaching and learning. Persons with narrow training in a specific area of educational psychology will generally find it very difficult to effectively function in the positions described above. It is also essential that the individual be able to apply their knowledge and training in education to dealing with the adult learner as found in the typical pharmacy student and the practicing pharmacist. It is essential to realize that the subjects of this educational process are not the children which are the focus of educational research, but rather adult learners. Thus, it is necessary to be able to apply educational psychology to the situation of the adult learner in a professional school.

In dealing with pharmaceutical faculty it is important to have an acquaintance with and/or familiarity with the chemical sciences and mathematics. This arises out of a need to communicate confidently and effectively with faculty. It is important to recognize that most faculty, being science Ph.D.s, regard educational psychology as one of the "soft" sciences. Thus to establish credibility within pharmaceutical education it is important to demonstrate to the faculty that the individual is capable of dealing with the subject matter which is the heart of pharmaceutical education. This does not mean that one must be a biochemist but rather that one must not appear to be overwhelmed by the "hard" sciences aspects of the curriculum.

In terms of training in areas of education, it is important to have knowledge of curriculum development methods, measurement techniques, statistics and research methodology. It is also important to have a working knowledge of the general psychology of human behavior. However, knowledge and skills in these areas are not useful unless an individual has the ability to translate these into terms which people outside the field can understand. It is also helpful to have the ability and willingness to learn new areas quickly; particularly those concerning health issues. And finally, a strong self-concept is necessary for psychological survival in positions where the importance of your knowledge, skills and functions are not taken for granted.

The compensation associated with positions for educational specialists in schools of pharmacy is one of the bright spots in the picture. Salaries range from $18,000 to $25,000 for an Assistant Professor (AACP, 1977). Many of these positions are on "soft money", though a number of schools are gradually shifting them to permanent positions. The opportunities for promotion are generally unclear since most people in the field have been working only for a few years. At present there is only one tenured faculty member who is an educational specialist.

With the respect to research support, funding is available though not for matters of purely educational research. Curriculum development projects have been the most frequently funded activities though there is an increasing shift to research in health related matters. As an example of this, an educational psychologist at one of the pharmacy institutions recently received a federal grant to investigate the efficacy of various kinds of learning materials for instructing people about various effects, side-effects, and proper usage of specific drugs. The major problem that one has in obtaining funding for research efforts

is the credentials problem. That is, most funding agencies do not consider persons with training in areas of education to have the necessary qualifications and experience for carrying out drug or health related research.

There are a number of problems associated with the various opportunities. First of all, the expectations are often unrealistically high. Since faculty members have little familiarity with the area of education, most schools expect an individual with a Ph.D. in education to be an expert in all areas of education from audiovisual aids to educational administration. Thus, one must be able to successfully deal with the discrepancy between one's own skills and abilities and the expectations of the school. A second problem is, that with the exception of specific projects, positions are generally ill-defined. Thus a considerable amount of time may initially be spent in simply finding out what is desired and required of one. A third problem is that of professional isolation. Any educational psychologist taking a position with a school of pharmacy will find that they are considered an "outsider" by the pharmacy faculty. At the same time one will probably lose some of the collegial relationships with those in educational psychology. A contributor to this problem is that most schools will expect their faculty members to develop an identification with pharmacy education. Thus, educational psychologists in pharmacy education will probably find that the view of one's self as an educational psychologist gradually erodes and is replaced by view of one's self as a faculty member of the school of pharmacy. Thus one must deal with the fact that one may become a "stranger in both camps".

However, the description of the roles of the educational specialist in pharmaceutical education is not fixed. There are developments which are expected to take place in the near future which may have a large impact upon these roles. First of all, it is expected that federal capitation funds and Special Project funds will almost entirely disappear in the near future. Thus, the number of

"soft money" positions available will shrink dramatically. In addition, it is expected that there will be little expansion and possibly some contraction in the number of educational development programs in schools of pharmacy. And it will also mean a definite decrease in federal funding for educational development projects.

However, this negative event may be counteracted by two other trends. The first is a shift to a patient or person orientation in pharmacy education. This should result in a greater need for individuals knowledgeable in human behavior. These individuals will be needed to teach pharmacy students about the social and psychological aspects of human behavior and also to teach methods of patient education. It should also result in a greater opportunity for cooperative ventures between educational psychologists and pharmaceutical researchers in the areas of patient education and continuing education for pharmacy practitioners. The third trend is the expansion of the area of health care research. Questions of how and why people learn about health related matters is becoming of increasing importance. In addition, the federal government is increasingly concerned about health professions training programs as evidenced by the grant program of the Center for Health Services Research which is designed to support investigations dealing with the "supply and distribution, education and training, quality, utilization, organization, and cost of health manpower." (Federal Register, 1978)

In summary, there are opportunities for educational psychologists in schools of pharmacy. In the past these opportunities have been in the area of educational development, but current trends indicate that there is a shift in emphasis due to an increasing concern with developing a patient orientation among pharmacists and to the increasing importance of health care research. If one decides to pursue these opportunities, one must be prepared to deal with the variety of problems

that one will probably face. The challenge will be to apply one's training and knowledge in educational psychology to the problems and processes of both pharmaceutical education and the practice of pharmacy. Persons interested in obtaining more information about available positions should contact the American Association of Colleges of Pharmacy in Bethesda, Maryland.

References

AACP, Annual survey of faculty salaries: Bethesda, Maryland: American Association of Colleges of Pharmacy, 1977.

Grants for health services research, evaluation and demonstration projects. Federal Register, 1978, 43(151), 34471-34476.

Rezler, A.G., Mrtek, R.G. & Manassee, H.R.,Jr. Linking career choice to personality types: A preliminary analysis of pharmacy students. Am. J. Pharm. Ed., 1976, 40(2), 121-125.

The Study Commission on Pharmacy, Pharmacists for the future. Ann Arbor Michigan: Health Administration Press, 1975.